

## AMENDMENTS TO THE CLAIMS

Please amend claims 6 and 8 as indicated below. Deletions appear in ~~strikethrough font~~, and additions are underlined. The listing of claims below will replace all prior versions and listings of claims in the application.

### Complete listing of claims

Claims 1 to 5 (Canceled).

6. (Currently amended) A process for selecting a signal peptide for secretory expression of a desired hirudin or hirudin derivative protein in *E. coli*, comprising:

(a) expressing in *E. coli* in culture medium, hirudin or a hirudin derivative which has antithrombotic activity, and which has a defined amino acid, aa<sub>x</sub>, at its N terminus, wherein said amino acid is connected via its N-terminal to a test signal peptide;

(b) determining expression rate by measuring said hirudin or hirudin derivative activity in the culture supernatant;

(c) repeating steps (a) and (b) with various signal peptides;

(d) selecting said signal peptide by comparing the expression rates represented by the hirudin or hirudin derivative antithrombotic activity found in step (b) wherein the *E. coli* bacteria are not *E. coli* secretor mutants.

7. (Previously presented) The process of claim 6, wherein aa<sub>x</sub> is leucine.

8. (Currently amended) The process of claim 6, further comprising expressing said signal peptide and the desired hirudin or hirudin derivative protein in *E. coli* via a nucleic

acid construct, wherein expression of the desired hirudin or hirudin derivative protein and said signal peptide occurs with simultaneous elimination of said signal peptide wherein the E. coli bacteria are not E. coli secretor mutants.

9. (Previously presented) The process of claim 6, wherein the desired hirudin or hirudin derivative protein is hirudin.

Claims 10 to 14 (Canceled).